breaks ties. After these tiles are returned face down and scrambled, the player going last turns a tile over to start the game.

b. Each player gets twelve tiles but may see only four, the other eight tiles remaining face down. Players keep their tiles hidden from each other. Tiles not chosen by any player are called the "rainbow gathering" and also remain face down.

c. A move is made by placing a tile in series, observing the Direction Invariant, next to the side of a tile already on the board, according to the pattern laid out in Fig. 7. In particular, care must be taken to prevent placing vertices of like patterned or colored quadrants next to each other in the same row or column, so that the colors alternate.

d. If a player cannot place a tile, they take a tile from the rainbow gathering as long as it is not empty, to be played in their next turn. If the rainbow gathering has been exhausted, they may take a tile to be played in their next turn from the face down tiles they received at the start of the game.

e. When a player has used all four tiles turned up initially, four more tiles are turned up from the set of twelve tiles received initially; this is repeated a third time to complete the game.

f. The first player properly to place all twelve tiles received at the start of the game wins. In a solitaire game, the goal is to run out placing the fewest tiles.

8032. This alternative embodiment meets a number of objectives for the present invention. However, the setup process of turning all the pieces over to start the game is somewhat time-consuming; as is the process for selecting the first player to move; such annoying features are a barrier to play. This embodiment still has a relatively limited number of players, who must wait while each other take turns. It is not straightforward to join a game in progress fairly. There is no board that can be moved and stored between games, and there is no board that can itself be used as playing pieces on a larger game board. In addition the requirement, mentioned in rule c. above, that players must manually alternate the color of any touching vertices renders the rules unnecisarily complex; it would be preferable if only the Direction Invariant need be observed to place a tile. Thus this alternative embodiment, while providing an entertaining and educational game attaining several of the objectives of the present invention, does not meet all the objectives desired.

8500. Description of the Preferred Embodiment

8520. To achieve these goals in the preferred embodiment, tile front surfaces 101 must be marked as shown in Fig. 2B. Pursuing this design of the present invention, the series for a single quadrant of the tile is shown in Fig. 8, with the other quadrants being left blank to simplify the illustration. In Fig. 8 the series denoted by the lateral markings is shown as starting in 801 with the element number "1" indicating it is the "first" element in its series. Similarly the next tile in the series 802 contains element number "2", and 803 contains the element "3". After tile 804 containing element "9" follows tile 805 containing element "1" just as in tile 801. It is thereby illustrated that the series is continued after element "9" by starting again with element "1", to be thence followed by "2", "3", and so on. This property is held by every series used in the present invention. It is also thereby evident that prior to and to the upper left of the tile 801 there could be a tile with the element "9", preceded to its upper left by a tile with element "8", and so on. The notion of tile 801 being "first" in the series is therefore nominal, as the series extends potentially infinitely in both directions.

8521. In the series of Fig. 8 it is also evident that this series could be reversed, in the sense that tile 802 could have been labeled with the element "9", so tile 803 would have contained the element "8", and so on. While this version is possible and the present invention would not much be encumbered by this choice, the preferred embodiment is illustrated in Fig. 8, namely, that upon leaving one tile in such direction so as to cross over the opposite corner of the same tile, the next tile in the series holds an increase in the element number, with the understanding that an "increase" over element "9" is element "1" as in the transition from tile 804 to tile 805. Conversely when leaving one tile directly so as not to cross over the opposite corner in reaching the next tile, the next tile will contain a decrease in the element number, with the understanding that a "decrease" from element "1" is element "9". As above we shall continue hereinafter to refer to this property as the "Direction Invariant".

8522. Fig. 9 illustrates how a second series runs in the opposite direction from the first series that was shown in Fig. 8. This second series can be thought to start on tile 901 where element "1" is imprinted on the quadrant marked by vertical lines. The next tile 902 in this second series is marked with element "2" in the quadrant marked with vertical lines. The sum of the elements modulus 9 in these opposing series is 0. This attribute—that the opposing quadrants' sum modulus 9 equals 0—is a property of every tile in the present

invention. For the tiles containing the element "9" itself, all quadrants contain the element "9", as shown for the two quadrants illustrated on tile 904; the sum of the elements of the opposing quadrants is 9 plus 9 equals 18, and 18 modulus 9 is 0. Fig. 9 illustrates that both series observe the Direction Invariant described above. Additionally tile 904 illustrates how the element "9" on the quadrant marked with vertical lines precedes the "1" on the similarly marked quadrant on tile 901, while element "8" marked on tile 905 precedes the "9" of the similarly marked quadrant of tile 904, further illustrating how both series extend potentially infinitely in both directions.

8523. Fig. 10 illustrates how a single tile is a participant in four separate series. The first two series are those from Fig. 9 as indicated by tile 903. Tile 1001 is shown to participate not only in those first two series from Fig. 9, but also in two new series crossing at right angles to those first two series. Tile 1001 has all four quadrants marked to identify the four series of which it is a member. The vertical and lateral lines of tile 1001 mark two quadrants as in Fig. 9 tile 906. The quadrant marked with boxes and the quadrant marked with dots indicate membership in the two new series that extend at right angles from the first two series. Any two elements which total 9 could have been placed in the two newly marked quadrants; in the preferred embodiment the lateral line "5" tile always has an "8"element for the quadrant marked with boxes. This yields a board design with the smallest possible Minimal Spanning Set and a macroscopic "9" tile in the center, which will become more evidently desirable hereinafter. To the upper right of tile 1001 is tile 1002 containing those elements necessitated by the Direction Invariant previously described. Similarly tile 1003 to the lower left of tile 1001 is also as prescribed by the Direction Invariant. As in Figs. 8 and 9 the tiles 1004 and 1005 are not necessarily terminal tiles; the two new series extend potentially infinitely in both directions.

8524. The placement of a single tile on the board such as tile 1001 determines the placement of all diagonally adjacent tiles in the plane, as illustrated in the partial plane in Fig. 11. The design of requiring each tile to participate as an element in each of four series fixes the elements and positions of all the tiles that are adjacent by corners to the tile 1001, and by induction to any of the tiles shown. Theoretically this plane extends potentially infinitely in all directions, so that tile 1005 in Fig. 11 is not the end of the plane but is followed at each corner by a tile as prescribed by the Direction Invariant, but which tiles cannot be shown in Fig. 11 only due to limitations of space.

8525. Fig. 12 illustrates a similar partial plane that will be found to follow the same pattern of tiles as in Fig. 11, except that the positions of the laterally and vertically marked quadrants have been interchanged, as have the positions of the quadrants marked with boxes and the quadrants marked with dots. As in Fig. 11, the placement of any one of the tiles in Fig. 12 determines the placement of each of the other tiles in the infinite plane. When the tiles of Fig. 12 are placed in the spaces between the tiles in Fig. 11, so that the tile 1201 is placed into the space to the right of the tile 1101, the result is the pattern of tiles shown in Fig. 13. While any of the tiles of Fig. 12 could have been placed to the right of tile 1101, the preferred embodiment is given by the selection of tile 1201 with the result shown in Fig. 13. The pattern shown in Fig. 13 is the preferred embodiment because it yields, with some further refinements discussed hereinafter, a board design with a macroscopic "9" tile in the center, with the surrounding eight tiles each unique. Only a few other patterns of tiles yield this result, namely, the mirror images of the pattern illustrated in Fig. 13, which are alternative layouts that could equally be chosen by someone skilled in the art, which designs are hereby incorporated herewith.

8526. The tiles used to create the pattern in Fig. 13 have the disadvantage that digits from "1" to "9" are used to indicate the series elements. This creates a problem in that rotating a tile about its midpoint—where the lines separating the quadrants cross—so that it rests upside down results in the numbers being upside down, and consequently less legible than those which are left right side up. This rotation of tiles can be avoided by doubling the number of tiles in the Minimal Spanning Set, so that each tile has an inverse tile with the patterns or colors inverted, and the numbers right side up, but this results in twice as many tiles to manufacture. Even if no rotation were contemplated, certainly some advantage would accrue to the players who were positioned so that the numbers appeared right side up as they gazed at the board. Adopting element number indicia that can be inverted without compromising their legibility can solve this problem. Fig. 14 illustrates the use of indicia similar to the markings used on playing cards. Tile 1401 has only one quadrant shown with the others blanked out for clarity. The upper left quadrant in tile 1401 is divided into 9 squares, and the center square is marked with the vertical line pattern denoting the "first" element of the series. Similarly tile 1402 has two small squares marked with vertical lines, indicating that it is the second element in the series identified by the vertical lines. Tile 1403 is likewise the third tile in that series, and so on descending to the right. Furthermore in an alternative embodiment, whenever indicia are employed that are formed from multiple

elements such as the small squares in Fig. 14, the indicia would be comprised of separate components that would be assembled to form a quadrant during game play.

8527. Fig. 15B illustrates tile 1202 using different methods for numbering elements of the series. In quadrants 1512 and 1513, the appropriate number of schematics of children's toys, arranged in the playing card pattern of Fig. 14, are used to represent the element numbers "7" and "2", respectively of tile 1202. In this example the schematic of the toy used identifies the series in which the quadrant is a member. In quadrants 1511 and 1514 geometric shapes, arranged in the playing card pattern illustrated in Fig. 14, are used to represent the element numbers "5" and "4", respectively. In these two quadrants the pattern within the shape, as well as the shape itself, both identify the series of which the quadrant is a member. When these indicia are embossed on the tile front surface, then the present invention is immediately accessible to blind people. In a game manufactured for the blind, it is necessary to choose symbols such as those in 1514, which have no intrinsic orientation, as the other three symbols in Fig. 15B do have. This is because any intrinsic orientation of the symbol used to represent the series would provide an extra clue as to the placement of the tile, which will become more apparent as the design of the present invention is further elucidated hereinafter. Symbols used in an implementation for suitable for blind players would be circle, square, hexagon, and octagon. From these examples it can be seen that any geometric, symbolic, or illustrative shape can be used for numbering elements and identifying series, and such representations as would be employed by someone skilled in the art are hereby incorporated herewith.

8528. Fig. 16 introduces a new method of identifying elements of a series. Only one quadrant of each tile is illustrated in Fig. 16, the other three being blanked out for clarity. In tile 1601 the quadrant is divided into nine small squares as in Fig. 14. However instead of the "playing card" representation of the numbers shows in Fig. 14, tile 1601 shows the innermost small square to be marked with vertical lines. Tile 1602 has the innermost small square and the one above it filled with vertical lines to indicate it is the second element of the series denoted by vertical lines. Tile 1603 is the third such tile, and so on descending to the right in a counterclockwise spiral. The remaining tiles in Fig. 16 illustrate a counter-clockwise spiral of element number indicia, with the central small square being the last to be filled as shown by the transition from tile 1604 to 1605. The improvement of Fig. 16's spiral element indicia design over Fig. 14's playing card design is that, although the playing card design has the same appearance right side up and inverted, a 180 degree rotation, there is still

a difference between right side up and looking at the design from the side, a 90 degree rotation, whereas this spiral design has indicia naturally occurring vertically and horizontally, and no advantage accrues to any player based on viewing position about the board.

8529. Fig. 17 illustrates the preferred embodiment for representing series element numbers. Only one quadrant of each tile is illustrated in Fig. 17, the other three being blanked out for clarity. In tile 1701 the illustrated quadrant is divided into nine small squares as in Figs. 14 and 16. Tile 1701 shows the outermost small square to be marked with vertical lines. Tile 1702 has the outermost small square and the next one clockwise—to its right—filled with vertical lines to indicate it is the second element of the series denoted by vertical lines. Tile 1703 is the third such tile, and so on descending to the right in a clockwise spiral. The remaining tiles in Fig. 17 illustrate a clockwise spiral of element number indicia, with the center small square being the last to be filled, as shown by the transition from tile 1704 to the tile 1705. The Fig. 17's element clockwise spiral indicia scheme shares all the advantages of that of Fig. 16, while being aesthetically superior because the outer corner of every quadrant is always marked, visually balancing the tile front surface.

8530. The element indicia method illustrated in Fig. 17 permits tiles to be rotated with impunity 90 degrees or 180 degrees about their central axis where the lines separating the quadrants cross, which enables tiles to be reused elsewhere in the pattern by rotating them. This results in the minimum number of tile front surface designs required to construct the specified pattern of the present invention, wherein each tile participates as an element in each of four distinct series. Fig. 18 illustrates the nine tiles of the Minimal Spanning Set that are needed to create the preferred embodiment of the present invention, using the element indicia scheme defined in Fig. 17; being the Minimal Spanning Set means that only these nine tile designs are needed, and all of these nine tile designs are needed. Tile 1801 is in fact the preferred embodiment of tile 1202, which was illustrated in alternative formats in Fig. 12 and in Fig. 15B. Any mirror image of Fig. 18 would serve equally well and might be chosen by any skilled in the art, and is hereby incorporated herewith.

8531. The game board on which the tiles are placed can be of any shape that can accommodate the playing pieces. In the preferred embodiment the game board is itself square, and is further subdivided into an 18 x 18 matrix of squares, each said small square of such size as to accommodate a single square playing tile 100. Given the nominal 2 cm square size of the tile 100, the game board is therefore 36 cm square. Fig. 19 shows a basic game board divided into said 324 squares. The 18 x 18 matrix of 324 squares is the preferred

embodiment because as will become evident hereinafter, once the game board is fully played out and all the tiles are placed on the board, each row and each column of tiles on the game board is different from the others, but the 19th row would be identical to the first row, and the 19th column would be identical to the first column.

8532. Fig. 20 shows a further important refinement in the preferred embodiment of the game board, wherein the 9 spanning tiles illustrated in Fig. 18 are expanded in size by a factor of 6, creating an enlarged set of nine spanning tiles which can be concatenated together observing the aforesaid Direction Invariant, and superimposed and imprinted on the 324 squares of the game board that was illustrated in Fig. 19. This creates a game board that is a concatenated, magnified rendition of the nine playing tiles in the Minimal Spanning Set for the preferred embodiment of the present invention. The use of the indicia scheme illustrated in Fig. 18 for the surface of the game board in the preferred embodiment as shown in Fig. 20 assures that the game board has no natural top, bottom, or other intrinsic orientation, so that no advantage accrues to any player based on viewing position around the board.

8533. It may be necessary to interrupt a game and continue its play at a later time. Also when a game is completed by the occasion of a player placing his or her last tile on the game board, unused tiles will still remain in the bag and in the possession of losing players: many tiles may not have yet been placed on the board. Losing players return their remaining tiles to the opaque bag, and the game board may be set aside as is, and used as a basis for starting a new game. This can be repeated through several games until every tile has been placed on the board. Therefore movement and storage of partially filled game boards are of particular importance to the present invention. Bookshelves are of insufficient depth fully to accommodate a 36 cm square game board. Many games in the prior art are not amenable to any device for facilitating the storage of partially completed game boards, primarily due to the uneven heights of playing pieces as in chess, the stacking of playing pieces as in checkers, or the instability of the playing pieces as in the Japanese board game Go. The present invention not being subject to any of these limitations, and to facilitate the manufacture, packaging, and shipping, as well as stacking, moving, and storing of partially filled game boards, and to eliminate the unsightly wrinkle caused by folding paperboard game boards and costly hinges, the preferred embodiment of the present invention incorporates a game board divided into two halves as illustrated in Fig. 21. One half partially filled with tiles can be placed on top of the other half also partially filled with tiles, and the pair lifted and set aside on a shelf until play is resumed, at which time they can be rejoined.

8534. It is also possible to construct the game board shown in Fig. 20 out of nine separate pieces as shown in Fig. 18. This permits the pieces of the game board to act as tiles for a second game board that is six times larger than the first. To clarify this design, a nominal tile size of 2 cm is used, with the understanding that other sizes could easily be chosen by one skilled in the art. For example if a game board be constructed out of nine tiles as in Fig. 18, so as to accommodate playing tiles 2 cm square within each of the 324 game board squares, with each of the said nine game board tiles being therefore 12 cm square, then these nine game board tiles could in turn be used as playing tiles on an 18 x 18 game board which is 216 cm square. This 216 cm square game board could also be constructed from nine tiles, each 72 cm square, for use on a game board 1296 cm square. This recursion could occur indefinitely, but clearly becomes physically unwieldy. However when the present invention is implemented in software instead of as physical tiles and game boards, there is no practical limit to the number of recursions possible, or the number of concurrent players, and this embodiment is hereby incorporated herewith.

8535. As indicated above the placement of any one tile in the potentially infinite plane of tiles illustrated partially in Fig. 11 determines the location of all of the remaining tiles that are cornerwise adjacent to it and to each other. Similarly a single tile placed anywhere in the potentially infinite plane of tiles shown in part in Fig. 12 determines the location of all the cornerwise adjacent tiles in that plane. It follows that fixing the location of two tiles in Fig. 13 will determine the pattern of all the tiles on the game board, so long as they are not both cornerwise adjacent to each other nor to intervening tiles between the two of them; in other words, so long as one belongs to the set of tiles represented in Fig. 11, and the other to the set of tiles represented by Fig. 12. Although it is possible for the game to be played without permanently fixing two or more tiles to the game board to set the pattern of play, in the preferred embodiment "Anchor Tiles" are permanently fixed to the game board to initiate play and to prevent players from inadvertently creating patterns which might not, perhaps, mesh properly as the game plays out. Anchor Tiles also assure that the pattern the tiles make when played is a microscopic image of the Minimal Spanning Set pattern imprinted on the game board and illustrated for the preferred embodiment in Fig. 20. While only two such Anchor Tiles are strictly speaking required to set the entire game board pattern, for aesthetic reasons and symmetry the preferred embodiment employs a total of four Anchor Tiles as illustrated in Fig. 22. In this discussion dimensions are nominal, being mentioned only to clarify the placement of Anchor Tiles on the board. Furthermore, the

elements depicted in Fig. 22 are intentionally not to scale, in order to permit viewing of sufficient detail for clarity. Tile 2201, oriented as shown in Fig. 22, which said tile is an embodiment of tile 100, and is nominally 2 cm square, is permanently fixed to the 36 cm square game board 2200 in the 2 cm square tile position 2211. Likewise 2 cm square tile 2202, oriented as shown, is permanently fixed to the 36 cm square game board 2200 in the 2 cm square tile position 2212. Similarly 2 cm square tile 2203, oriented as shown, is permanently fixed to the 36 cm square game board 2200 in the 2 cm square tile position 2213. Finally 2 cm square tile 2204, oriented as shown, is permanently fixed to the 36 cm square game board 2200 in the 2 cm square tile position 2214. The permanent fixing of Anchor Tiles to the game board using a suitable adhesive, screw, or other means normally applied by one skilled in the art has the additional benefit of providing a set of edges against which playing tiles can be aligned during game play to keep the playing pieces straight on the board. It is also commonly applied art to manufacture the game board so as to provide recesses or channels for the tiles, in order to prevent the inadvertent movement of tiles if they are touched after being placed on the board, or the board is tilted while being moved and stored. This alternative embodiment is not the preferred embodiment because of its increased manufacturing costs, but it is common in the art and is hereby incorporated herewith.

8536. Figs. 23A-23D show the fully played game board with every tile 100 with its front surface 101 facing up, in place in proper sequence in its four series. Figs. 23A – 23D are shown in four parts only for clarity, and joined together form the fully played game board. Fig. 23B should be placed below Fig. 23A such that tile 2311 is adjacent to tile 2301. Fig. 23C should be placed to the right of Fig. 23A such that tile 2312 is adjacent to tile 2302. Fig. 23D should be placed below Fig. 23C such that tile 2314 is adjacent to tile 2304, and to the right of Fig. 23B so tile 2313 is adjacent to tile 2303. Once these concatenations have been applied, the concepts "below" and "right" just used to direct said concatenations should be abandoned, as the tiles played on the game board, like the game board itself, have no intrinsic orientation. As an additional aid to understanding Fig. 23A shows the Anchor Tile 2201 in its proper position, Fig. 23B shows the Anchor Tile 2203 in its proper position, Fig. 23C shows the Anchor Tile 2202 in its proper position, and Fig. 23D shows the Anchor Tile 2204 in its proper position. Figs. 23A through 23D therefore together illustrate the completed pattern of playing tiles of the preferred embodiment of the present invention, which said pattern would emerge onto the game board after several games had been played to

completion, with each said game after the first game using the ending position of the previous game as its starting point.

8537. The board game thus far described is suitable for use as an educational aid to help young children practice counting, and also as a tutorial mode of the present invention to aid those first encountering the present invention to master the proper placement of tiles into series. However since there are only 9 tiles in the Minimal Spanning Set, and 320 possible squares on the game board, there are approximately 35 places for each tile on the game board. Once the placing of tiles into series has been mastered, this large number of possible places for each tile results in a game that is too easy to play. This problem is resolved by imprinting the image on the game board in Fig. 20 onto the back surface 102 of the playing tiles in Figs. 23A-23D. This places a distinct pattern or solid color on the back surface 102 of each tile, which is then used to further restrict the placement of tiles on the board during game play. Thus the pattern or color on the back surface 102 of the tile 100 must match the pattern or color of the square onto which it is placed on the game board in Fig. 20, in addition to its being in proper sequence in its four series according to the pattern on its front surface 101. This requirement renders finding a correct location on the game board for a tile more complex, and creates thereby a more challenging game. During tutorial play while players are learning to play the game they simply ignore the color or pattern on the back of the tile when placing the tile on the board, focusing only on the placement of the tile in proper series.

8538. The fully implemented preferred embodiment of the present invention is readily manufactured by the following process. Fig. 24 shows the horizontally reflected mirror image of the game board illustrated in Fig. 20. There is one square in Fig. 24 for each tile in Figs. 23A – 23D. The process for completing construction of the game tiles is as follows. The playing tiles 100 of Figs. 23A – 23D with their front surfaces 101 facing up as shown in Figs. 23A – 23D are concatenated together as described above, and then the tiles are turned over together by rotating the entire plane of the tiles to the right 180 degrees about the axis 2350 extending vertically through the rightmost sides of Figs 23C and 23D. The pattern illustrated in Fig. 24 is then affixed to the back surfaces 102 of the tiles 100, which said back surfaces by the rotational process just described are now facing up. As a result the tile 2321 receives on its back the vertical patterned square 2421, the tile 2322 receives on its back the dot pattern of square 2422, the tile 2323 receives on its back the boxes pattern of square 2423, and the tile 2324 receives on its back the lateral patterned square 2424.

8539. In an alternative embodiment the pattern or color affixed to the back surface 102 of the tile 100 is also or instead imprinted on the sides of the tile 103, 104, 105, and 106, enabling the identification of the proper placement for the tile without having to turn the tile over. In the case where the color or pattern on the back surface is also to appear on the sides, the manufacture of the tile can be simplified by imprinting the front surface 101 onto a solid plastic tile 100 made from the color or pattern of plastic which would be used to mark the back surface 102 with the color or pattern of the game board square as just described; since the color or pattern of said plastic tile is then itself the color of the back surface, the tile sides 103, 104, 105, and 106 will automatically receive the color or pattern of the back surface of the tile.

8540. It has been noted that the nine unique tile front surfaces illustrated in Fig. 18 suffice and are necessary to complete the full pattern of tiles exhibited in Figs. 23A – 23D. When combined with the patterning or coloring of the back surface 102, each of the 9 unique tile front surfaces in the Minimal Spanning Set can potentially be matched with each of the four patterns or colors used to denote each of the four series, as well as with a fifth pattern or color used to denote a clear board square with no marking on it such as square 2001 shown in Fig. 20. This combination of nine unique tile front surfaces with five unique tile back surfaces gives rise to forty-five possible unique tiles. Table I shows the number of each of these forty-five unique tiles that are present when the tile front surfaces 101 are designed as in Fig. 18 and the game board is designed as in Fig. 20. The tile front surfaces are identified in Table I in the leftmost column by indicating the number of small squares with lateral lines that appear on the tile front surfaces as depicted in Fig. 18. The tile backs are identified at the top of the second through sixth columns by the pattern marking the back surface of the tile. In the rightmost column the total number of each type of tile is noted. In the final row the total number of each type of tile is noted.

8541. Table I will assist in the rapid construction of the appropriate number of tiles in the preferred embodiment. This table also summarizes the number of the 324 game board squares each of the 45 unique tiles can occupy. For example a tile with 4 small squares marked with lateral lines on the front surface and with its back surface marked with vertical lines, can occupy any of 6 different locations on the game board of Fig. 20.

Table I

Number of Small Squares With Lateral Lines on Tile Front Surface	Back is Marked With Lateral Lines	Back is Marked With Vertical Lines	Back is Marked With Boxes	Back is Marked With Dots	Back is Not Marked	Total Number of Tiles
1	7	6	2	2	19	36
2	3	1	10	8	14	36
3	5	7	4	7	13	36
4	7	6	2	1	20	36
5	1	3	9	6	17	36
6	8	5	5	6	12	36
7	6	8	2	1	19	36
8	3	3	7	8	15	36
9	5	6	4	6	15	36
Total Number of Tiles	**45**	**45**	**45**	**45**	**144**	**324**

8542. A number of variations of rules might be adopted by one skilled in the art to suit the present invention. However an exemplary set of rules is listed here to complete the description of the preferred embodiment of the present invention, said rules best fulfilling the stated objectives for the present invention.

a. Each player blindly takes nine tiles from the bag, placing them face up and keeping the back surfaces hidden from the other players. As there are initially 320 tiles in the bag, there may be from one to thirty-five players in a game.

b. All players start at the same time, and continue placing tiles on the board as described in the next rule. A player can join a game in progress by starting with one more than the largest number of tiles held by any other player at the time that they start.

c. A tile must be placed in series, touching at least one tile already on the board. Starting in the middle of a series and touching a corner or a side are okay. (In an alternative embodiment, the requirement to touch a tile already on the board can be

ignored as long as the tile is placed properly in the series that results when the gaps are eventually filled in.) The solid color on the tile back must match the color of the square where it is placed, but this requirement is suspended during tutorial play.

d. If a player cannot place a tile on the board, they blindly add a tile to their pile from the bag.

e. If a player gets stuck with a tile they can't place, they may return it to the bag and blindly take three tiles in exchange.

f. If a player is caught placing a tile in the wrong place, they must return the tile to their pile, and take three more tiles from the bag. Incorrectly placed tiles whose player(s) cannot be identified are removed from the board and returned to the tile bag.

g. The first player who runs out of tiles wins. In a solitaire game, the goal is to run out placing the fewest tiles.

8543. The preferred embodiment of the present invention with the exemplary rules just presented meets all of the objectives desired, excepting accessibility to blind people. To meet this objective it is required to manufacture the board with square recesses for the tiles, so that played tiles can be touched without moving them, a practice mentioned above as well known in the prior art. The requirement to emboss the front surface of the tile with element indicia that indicate in which series each quadrant participates has been discussed above. Thus in the game manufactured for play by the blind, each of the four series has a unique graphic which identifies it, said unique graphic having no intrinsic orientation as previously discussed. A game intended for the blind would still incorporate the pattern or color scheme used by the sighted, so that both blind and sighted players could play together. In addition to receiving the pattern or color on the back surface of the tile corresponding to the pattern or color of the game board square on which the tile can be placed, the back surface of the tile must be embossed with an enlarged version of the symbol or graphic used to represent the series of which the back surface of the tile is a member by pattern or color, unless it is not a member of a series, in which case it is left smooth. And finally the game board squares would, in addition to being patterned or colored as in Fig. 20, would be recessed to receive the embossed figure used to represent the series and imprinted on the back surface of the tile, unless they were unmarked squares, in which case they would remain smooth.